

NOTES ON *CRITONIA* IN MESOAMERICA (EUPATORIEAE: ASTERACEAE)

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ABSTRACT

A key is presented for the fifteen species of *Critonia* in Mesoamerica, *C. wilburii* *sp. nov.* is described as new from Panamá, and a new combination is provided for *C. yashanalensis comb. nov.*

KEY WORDS: Asteraceae, Eupatorieae, *Critonia*, Mesoamerica, key.

A study of the genus *Critonia* for the Central American area has been completed for eventual inclusion in a treatment of the Eupatorieae in the Flora Mesoamerica to be published in Spanish. The present paper is provided to describe a new Panamanian species of the genus that has been discovered and to offer an English version of the key to the species of the area. One new combination is also provided for a species described by Whittemore (1988).

Among the specimens seen from Panamá that would key in the *Flora of Panamá* treatment (King & Robinson 1975) to *Critonia billbergiana* (Beurl.) King & H. Robins., are actually three distinct species. *Critonia billbergiana* itself seems to occur only along the Atlantic coast in that country, although the same species also occurs in Guatemala, Chiapas, Honduras, and Belize, where it has been called *C. magistri* (L.O. Williams) King & H. Robins. In western Panamá, at higher elevations near Volcán Chiriquí, there are specimens of the mostly Costa Rican *C. laurifolia* (B.L. Robins.) King & H. Robins. The third species, from inland in central Panamá, is described herein as follows:

Critonia wilburii R.M. King & H. Robinson, *sp. nov.* (Figure 1). TYPE: PANAMÁ. Prov. Panamá: slopes of Cerro Jefe between Cerro Azul and La Eneida, about 15 miles northeast of Panamá City. Sprawling woody vine. 30 Dec 1971, R.L. Wilbur, F. Almeda & J. Luteyn 15546 (HOLOTYPE: US). PARATYPES: PANAMÁ. Prov. Coclé, road to Coclesito. Logging camp 12 mi from Llano Grande. Alt. 200 m. 8° N, 80° W. Vine; flowers white. 9 Dec 1983, H.W. Churchill, A. Lier, W.S. Hambruster, & A. Herzig 4007 (MO, US).



Critonia wilburii R. M. King & H. Robinson, holotype, United States National Herbarium (US). Photo by Victor E. Krantz, Staff Photographer, National Museum of Natural History.

Figure 1. *Critonia wilburii* R.M. King & H. Robinson, holotype, United States National Herbarium (US). Photos by Victor E. Krantz, Staff Photographer, National Museum of Natural History.

Plantae scandentes lignosae sparse ramosae; caules teretes sparse puberuli vel glabri non fistulosi. Folia opposita, petiolis 1-2 cm longis; laminae ovatae plerumque 5-7 cm longae 1.8-3.5 cm latae base obtusae margine serrulatae apice breviter acuminatae supra et subtus puberulae vel subglabrae trinervatae, nervis secundariis ad marginem basilarem parallelibus, maculis pellucidis obscuris. Inflorescentiae anguste pyramidaliter paniculatae, internodiis primariis elongatis, ramis dense puberulis vel pilosulis. Capitula sessilia vel subsessilia 2-3 in fasciculis 9-10 mm alta; involucra breviter bracteae involucri ca. 30 subimbricatae 1-5 mm longae late ovatae vel oblongae apice rotundatae vel obtusae extus glabrae. Flores 8-10 in capitulo; corollae anguste infundibulares ca. 6.5 mm longae glabrae, lobis ca. 1 mm longis anguste triangularibus; appendices stylorum distaliter leniter latiores. Achaenia ca. 3.5 mm longa base leniter angustiora glabra vel superne breviter persparse setulifera; setae pappi 35-45 ca. 7 mm longae apice distincte lateriores.

The new species has the same habit as *Critonia billbergiana*, and also has the heads with 10 flowers and the leaves without obvious internal pellucid pockets. The species differs by its solid stems, the pubescent branches of its inflorescence, and the shorter involucre that scarcely reaches half the length of the head. The head form was that represented in the illustration of *C. billbergiana* in the Flora of Panamá (King & Robinson 1975).

Critonia yashanalensis (Whittemore) R.M. King & H. Robinson, *comb. nov.* BASIONYM: *Eupatorium yashanalense* Whittemore, *Sida* 13:77. 1988.

This species from Chiapas, México seems close to *Critonia conzattii* (B.L. Robins.) King & H. Robins. from farther west, in Oaxaca, but the stems are less angled, as noted by Whittemore (1988), and the trinervation of the leaves reaches the distal fourth of the blade with only slight interruption.

Key to the species of *Critonia* in Mesoamerica

1. Stems densely villous; heads 5 mm wide or wider, with ca. 20 flowers. *C. lanicaulis*
1. Stems flocculose pubescent or pilose to glabrous; heads 2-4 mm wide, with 4-12 flowers.

2. Slender woody vines; leaf blades broadly ovate to broadly elliptical, 5-12 cm long.
3. Heads with 8-11 flowers; leaf areoles usually without evident pellucid dots when seen against light.
 4. Stems narrowly fistulose; branches of inflorescence subglabrous; involucre more than two thirds as long as the head. *C. billbergiana*
 4. Stems with solid pith; branches of inflorescence puberulous or pilosulous; involucre about half as long as the head. *C. wilburii*
3. Heads with 4-6 flowers; leaf areoles usually with small pellucid dots when seen against light.
 5. Inflorescence branches corymbose with heads all pedicellate; smaller stems with solid pith; stems whitish. *C. campechensis*
 5. Inflorescence branches bearing many sessile heads in fascicles; all stems usually narrowly fistulose; stems light brown.
 6. Primary leaves with shortly acute to obtuse and apiculate leaf tips; achenes with sparse long antrorse setulae above; at elevations below 1000 m. *C. bartlettii*
 6. Primary leaves with narrowly acuminate tips; achenes with numerous short spreading setulae above; at elevations above 1000 m. *C. laurifolia*
2. Erect or reclining coarse herbs, shrubs, or small trees; leaf blades large and ovate or lanceolate, mostly 10 to 25 cm long.
7. Stems greenish to yellowish, usually fistulose, often coarsely tetragonal or hexagonal.
 8. Heads with ca. 5 flowers; pappus bristles not enlarged at tips; stems and leaves glabrous. *C. sezangularis*
 8. Heads with ca. 10 flowers; pappus bristles with slightly but distinctly enlarged tips; stems and leaves with some flocculose or arachnoid pubescence.
 9. Petioles mostly or completely unwinged; stems terete to slightly hexagonal, not speckled with linear spots, with evanescent floccose pubescence. *C. morifolia*
 9. Petioles winged completely to base; stems weakly to strongly quadrangular, speckled with numerous linear spots, glabrous or with thin arachnoid pubescence. *C. quadrangularis*
7. Stems brownish, with solid pith, usually terete or subhexagonal.
 10. Leaf blades with 1-4 strong secondary veins ascending at less than 45° angles from the midrib; areoles with mostly rounded pellucid spots; heads with short pedicels.

11. Leaf blades trinervate from the base, veins reaching distal fourth of blade, without tufts of tomentum in axils; panicle broadly and laxly corymbose. *C. yashanalensis*
11. Leaf blades trinervate or with ascending secondary veins from well above the base, with tufts of tomentum in axils; panicle densely pyramidal or cylindrical.
12. Margin of leaf blades with projecting angle near basal third; inflorescence a small, cylindrical thyrsoid panicle; heads 13-15 mm high; achenes densely long setuliferous on sides and ribs; pappus with ca. 50 bristles. *C. iltisii*
12. Margin of leaf blades elliptical without angle; inflorescence a broad pyramidal panicle; heads ca. 8 mm high; achenes with short setulae on sides, glabrous on the pale ribs; pappus with ca. 25 bristles. *C. hebebotrya*
10. Leaf blades regularly pinnately veined with 5-9 secondary veins spreading from the midrib at more than 45°; areoles with distinct pellucid lines and dots; heads mostly sessile in fascicles.
13. Heads with ca. 10 flowers; pappus ca. 6 mm long, with 30-36 bristles. *C. nicaraguensis*
13. Heads with ca. 5 flowers; pappus 3-4 mm long, with 25-30 bristles.
14. Branches of inflorescence with dense spreading puberulence; style branches only slightly broadened distally. *C. daleoides*
14. Branches of inflorescence subglabrous or sparsely appressed puberulous; style branches distinctly thickened distally.
15. Stems terete or subhexagonal; leaf tips narrowly acuminate; corollas funnelform, with short lobes ca. 0.5 mm long and 0.5 mm wide; achenes scabrid mostly on ribs; pappus bristles narrowed below the broadened tips. *C. breedlovei*
15. Stems hexagonal with 6 ribs; leaf tips slightly short acuminate; corollas tubular with lobes nearly twice as long as wide; achenes with long setulae on sides and ribs; pappus broad from the base. *C. tuztlae*

The authorities for the 13 species not described or combined in this paper are as follows: *Critonia bartlettii* (B.L. Robins.) King & H. Robins., *C. billbergiana* (Beurl.) King & H. Robins., *C. breedlovei* King & H. Robins., *C. campechensis* (B.L. Robins.) King & H. Robins., *C. daleoides* DC., *C. hebebotrya* DC., *C. iltisii* King & H. Robins., *C. lanicaulis* (B.L. Robins.) King & H. Robins. (incl. *C. belizeana* B.L. Turner), *C. laurifolia* (B.L. Robins.) King & H. Robins., *C. morifolia* (Miller) King & H. Robins., *C. nicaraguensis* (B.L.

Robins.) King & H. Robins., *C. quadrangularis* (DC.) King & H. Robins., *C. sezangularis* (Klatt) King & H. Robins. (incl. *Eupatorium sotorum* C. Nelson), and *C. tuztlae* King & H. Robins.

LITERATURE CITED

- King, R.M. & H. Robinson. 1975 (1976). Eupatorieae. Pp. 888-1004. In R.E. Woodson, Jr., R.W. Schery, & collaborators, *Flora of Panama*, part IX, family 184. Compositae. Ann. Missouri Bot. Gard. 62:835-1322.
- Whittemore, A.T. 1988. New taxa of *Eupatorium* sect. *Dalea* (Compositae: Eupatorieae). Sida 13:77-81.